

10/508254 11-14-05

C U F C

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV669631127US, in an envelope addressed to: Attention: Certificate of Correction Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.  
Dated: November 11, 2005 Signature:   
(Darlene Fujino)

Docket No.: JJJ-P01-558  
(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Letters Patent of:  
Charette *et al.*

Patent No.: 6,936,582

Issued: August 30, 2005

For: SYNERGISTIC EFFECTS OF OP/BMP  
MORPHOGENS AND GDNF/NGF  
NEUROTROPHIC FACTORS

*Certificate  
NOV 17 2005  
of Correction*

### **REQUEST FOR CERTIFICATE OF CORRECTION PURSUANT TO 37 CFR 1.322**

Attention: Certificate of Correction Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted typographical errors which should be corrected.

In the Claims:

In Claim 1, column 19, line 7, the word "ant" should read "act".

In Claim 3, column 19, line 14, the phrase "sevenacysteine" should read "seven-cysteine".

The errors were not in the claims as filed by applicant. (See Exhibit A corresponding to the Notice of Allowability mailed by the United States Patent and Trademark Office on November 26, 2004, including a copy of the allowed claims.) Since the typographical errors were the result of the Office's mistake, no fee is required.

3144340.1

NOV 22 2005

Transmitted herewith is a proposed Certificate of Correction effecting such amendment.  
Patentee respectfully solicits the granting of the requested Certificate of Correction.

Applicant believes no fee is due with this request. However, if a fee is due, please charge our Deposit Account No. 18-1945, under Order No. JJJ-P01-558 from which the undersigned is authorized to draw.

Dated: November 11, 2005

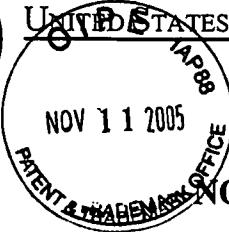
Respectfully submitted,

By   
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Attorneys/Agents For Applicant



## UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
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SJS

## NOTICE OF ALLOWANCE AND FEE(S) DUE

28120

7590

11/26/2004

Ropes &amp; Gray

ROPS & GRAY LLP  
ONE INTERNATIONAL PLACE  
BOSTON, MA 02110-2624

NOV 29 2004

Intellectual Property Dept.

EXAMINER

DEBERRY, REGINA M

ART UNIT

PAPER NUMBER

1647

DATE MAILED: 11/26/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,254	10/02/2000	Marc F. Charette	CIBT-P01-558	9598

TITLE OF INVENTION: SYNERGISTIC EFFECTS OF OP/BMP MORPHOGENS AND GDNF/NGF NEUROTROPHIC FACTORS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370	\$0	\$1370	02/28/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

## HOW TO REPLY TO THIS NOTICE:

## I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Ropes &amp; Gray

Page 1 of Symbol #: JJJ-P01-558

Action Due: Issue Fee / File IV 3r CON 22 2005

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE  
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or Fax (703) 746-4000

**INSTRUCTIONS** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

28120 7590 11/26/2004

**ROPS & GRAY LLP**  
ONE INTERNATIONAL PLACE  
BOSTON, MA 02110-2624

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,254	10/02/2000	Marc F. Charette	CIBT-P01-558	9598

**TITLE OF INVENTION: SYNERGISTIC EFFECTS OF OP/BMP MORPHOGENS AND GDNF/NGF NEUROTROPHIC FACTORS**

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370	\$0	\$1370	02/28/2005
EXAMINER	ART UNIT		CLASS-SUBCLASS		
DEBERRY, REGINA M	1647		514-012000		

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are enclosed:

4b. Payment of Fee(s):

Issue Fee  
 Publication Fee (No small entity discount permitted)  
 Advance Order - # of Copies \_\_\_\_\_

A check in the amount of the fee(s) is enclosed.

Payment by credit card. Form PTO-2038 is attached.

The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  
 b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,254	10/02/2000	Marc F. Charette	CIBT-P01-558	9598
28120	7590	11/26/2004		
			EXAMINER	
			DEBERRY, REGINA M	
			ART UNIT	PAPER NUMBER
			1647	

DATE MAILED: 11/26/2004

**Determination of Patent Term Extension under 35 U.S.C. 154 (b)**  
(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



### Notice of Allowability

Application No.	Applicant(s)	
09/508,254	CHARRETTE ET AL.	
Examiner	Art Unit	
Regina M. DeBerry	1647	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address—

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 8/11/04.
2.  The allowed claim(s) is/are 1, 11, 15-23 (renumbered as 1-11 respectively).
3.  The drawings filed on 05 May 2002 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

*Elizabeth C. Tammes*

ELIZABETH C. TAMMES  
PRIMARY EXAMINER  
NOV 22 2005



Application No.: 09/508254

Docket No.: JJJ-P01-558

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings of claims:

1. (Currently Amended) A method for promoting survival of mammalian peripheral neural cells in vitro, wherein said cells express an OP/BMP-activated serine/threonine kinase receptor and a GDNF- or NGF-activated tyrosine kinase receptor, comprising:  
contacting said neural cells with an effective concentration of a preparation comprising
  - (a) an OP/BMP morphogen having an amino acid sequence having at least 70% homology or 60% identity with the C-terminal seven cysteine skeleton of human OP-1, wherein said OP/BMP morphogen can induce ectopic bone, and
  - (b) a GDNF neurotrophic factor or a NGF neurotrophic factor selected from GDNF, BDNF, NT-3, NT-4, NT-5 or NT-6,  
wherein said OP/BMP morphogen and said GDNF neurotrophic factor or NGF neurotrophic factor act synergistically to promote survival of mammalian neural cells.
- 2.10. (Cancelled)
2. (Original) A method as in claim 1, wherein said neural cells comprise neurons or neurological cells.
- 12.14. (Cancelled)
3. (Original) A method as in claim 1, wherein said OP/BMP morphogen comprises an amino acid sequence having at least 80% homology with the C-terminal seven-cysteine skeleton of human OP-1, and wherein said OP/BMP morphogen can induce ectopic bone.
4. (Original) A method as in claim 1, wherein said OP/BMP morphogen comprises an amino acid sequence having at least 90% homology with the C-terminal seven-cysteine skeleton of human OP-1, and wherein said OP/BMP morphogen can induce ectopic bone.
5. (Original) A method as in claim 1, wherein said OP/BMP morphogen comprises an amino acid sequence at least 70% identical to the C-terminal seven-cysteine skeleton of human OP-1.
6. (Previously Presented) A method as in claim 1, wherein said OP/BMP morphogen is selected from OP-1, OP-2, OP-3, BMP2, BMP3, BMP4, BMP5, BMP6 or BMP9.

7 19. (Previously Presented) A method as in claim 1, wherein said effective concentration of the preparation is between 0.1 ng/ml and 10  $\mu$ g/ml of said OP/BMP morphogen and between 0.1 ng/ml and 10  $\mu$ g/ml of said GDNF neurotrophic factor or said NGF neurotrophic factor.

8 20. (Original) A method as in claim 19 wherein, said effective concentration is between 1 ng/ml and 100 ng/ml of said OP/BMP morphogen.

9 21. (Previously Presented) A method as in claim 19, wherein said effective concentration is between 1 ng/ml and 100 ng/ml of said GDNF neurotrophic factor or said NGF neurotrophic factor.

10 22. (Previously Presented) A method as in claim 19, wherein said effective concentration is between 1 ng/ml and 100 ng/ml of said OP/BMP morphogen and between 1 ng/ml and 100 ng/ml of said GDNF neurotrophic factor or said NGF neurotrophic factor.

11 23. (Previously Presented) A method as in claim 1, wherein said GDNF neurotrophic factor comprises GDNF.

24.-32. (Cancelled)

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTIONPage 1 of 1

PATENT NO. : 6,936,582

APPLICATION NO. : 09/508254

ISSUE DATE : August 30, 2005

INVENTOR(S) : Charette et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Claim 1, column 19, line 7, the word "ant" should read "act".

In Claim 3, column 19, line 14, the phrase "sevenacysteine" should read "seven-cysteine".

## MAILING ADDRESS OF SENDER (Please do not use customer number below):

Gloria Fuentes

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New York, New York 10020

1

3144343.1

NIV 2328

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